



Department of Defense INSTRUCTION

NUMBER 6055.16
July 29, 2008

USD(AT&L)

SUBJECT: Explosives Safety Management Program

References: See Enclosure 1

1. **PURPOSE.** This Instruction:

- a. Implements and prescribes the manner for carrying out the policies contained in DoD Directive (DoDD) 6055.9E (Reference (a)) and DoDD 4715.1E (Reference (b)).
- b. Prescribes procedures for the operation of the DoD Explosives Safety Management Program (ESMP) for DoD military munitions and military toxic chemical agents.

2. **APPLICABILITY.** This Instruction applies to the OSD, the Military Departments (including their Reserve Components), the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the Department of Defense (hereafter referred to collectively as the “DoD Components”). The term “Military Services,” as used herein, refers to the Army, Navy, Air Force, and Marine Corps.

3. **DEFINITIONS.** See Glossary.

4. **POLICY.** It is DoD policy to:

- a. Provide the maximum possible protection to people and property from the damaging effects of DoD military munitions in accordance with DoD Directive 6055.9E (Reference (a)).
- b. Make informed risk decisions at the appropriate level of leadership in accordance with Reference (a) and DoD Directive 4715.1E (Reference (b)).
- c. Implement management systems approaches and best business practices to maintain ESMPs in accordance with Reference (b).

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5. RESPONSIBILITIES. See Enclosure 2.

6. PROCEDURES

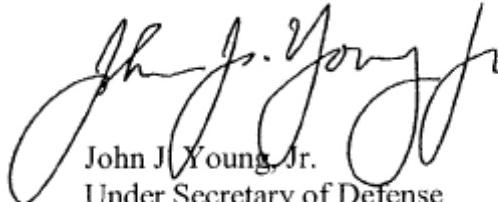
a. Department of Defense Explosives Safety Board (DDESB) operating procedures are in Enclosure 3.

b. ESMP procedures and requirements are in Enclosures 4 through 13.

7. REPORTING REQUIREMENTS. The annual report to the Secretary of Defense has been assigned Report Control Symbol DD-AT&L(A)2328 in accordance with DoD 8910.1-M (Reference (c)).

8. RELEASABILITY. UNLIMITED. This Instruction is approved for public release. Copies may be obtained through the Internet from the DoD Issuances Web Site at <http://www.dtic.mil/whs/directives>.

9. EFFECTIVE DATE. This Instruction is effective immediately.



John J. Young, Jr.
Under Secretary of Defense
for Acquisition, Technology and Logistics

Enclosures

1. References
2. Responsibilities
3. DDESB Organization, Management, and Functions
4. DoD Military Munitions Explosives and Chemical Agent Risk Stewardship (MMRS)
5. ESMP Issuances, Publications, and Documents
6. DDESB RDT&E Program
7. Strategic Communication
8. DDESB Explosives Safety Management Evaluation Program
9. DoD Explosives Hazard Classification System
10. DDESB-RESS Planning Process
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Glossary

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REFERENCES

- (a) DoD Directive 6055.9E, "Explosives Safety Management and the DoD Explosives Safety Board," August 19, 2005
- (b) DoD Directive 4715.1E, "Environment, Safety, and Occupational Health (ESOH)," March 19, 2005
- (c) DoD 8910.1-M, "Department of Defense Procedures for Management of Information Requirements," June 30, 1998
- (d) Section 1534 of title 2, United States Code
- (e) Appendix of title 5, United States Code
- (f) DoD 6055.09-STD, "DoD Ammunition and Explosives Safety Standards," February 29, 2008
- (g) Sections 101(e)(4) and 172 of title 10, United States Code
- (h) Technical Manual 5-1300 (NAVFAC P-397, AFR 88-22), "Structures to Resist the Effects of Accidental Explosions," November 19, 1990
- (i) Joint Technical Bulletin 700-2/Navy Sea Systems Command Instruction (NAVSEAINST) 8020.8B/TO 11A-1-47/Defense Logistics Agency Regulation (DLAR) 8220.1, "Department of Defense Ammunition and Explosives Hazard Classification Procedures," January 5, 1998
- (j) DoD Instruction 4145.26, "DoD Contractor's Safety Requirements for Ammunition and Explosives," April 9, 2005
- (k) DoD 4145.26-M, "DoD Contractor's Safety Manual for Ammunition and Explosives," March 13, 2008
- (l) DoD Instruction 4140.62, "Management and Disposition of Material Potentially Presenting an Explosive Hazard (MPPEH)," December 3, 2004
- (m) The National Defense Strategy of the United States of America, March 2005¹
- (n) Government Performance and Results Act of 1993²
- (o) Subpart 173.56 of title 49, Code of Federal Regulations
- (p) DoD Instruction 6055.07, "Accident Investigation, Reporting, and Record Keeping," October 3, 2000
- (q) Section 2011 of title 42, United States Code

¹ Available at www.defenselink.mil/news/Mar2005/d20050318nds1.pdf

² Available at www.whitehouse.gov/omb/mgmt-gpra/gplaw2m.html

ENCLOSURE 2

RESPONSIBILITIES

1. UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS (USD(AT&L)). The USD(AT&L) shall:

- a. Oversee implementation of this Instruction.
- b. Integrate explosives safety management (ESM) principles and values into DoD military munitions acquisition and USD(AT&L) strategic planning.

2. DEPUTY UNDER SECRETARY OF DEFENSE FOR INSTALLATIONS AND ENVIRONMENT (DUSD(I&E)). The DUSD(I&E), under the authority, direction, and control of the USD(AT&L), shall:

- a. Establish goals for the ESMP.
- b. Integrate ESMP goals and objectives into the Defense Installations Strategic Plan.

3. DDESB CHAIR. The DDESB Chair, under the authority, direction, and control of the DUSD(I&E), shall:

- a. Operate according to the procedures in Enclosure 3.
- b. Coordinate any discussions, liaisons, negotiations, or other contacts with foreign governments or international organizations with the Under Secretary of Defense for Policy (USD(P)) and in strict compliance with all requirements governing contacts and agreements with foreign states or international organizations.
- c. When conducting meetings with State, local, and tribal government officials, ensure communications with such government officials are compliant with this provision of law, to the extent appropriate to the individual situation. Pursuant to section 1534 of title 2, United States Code (U.S.C.) (Reference (d)), the Federal Advisory Committee Act (appendix of title 5, U.S.C.) (Reference (e)) does not apply to actions in support of intergovernmental communications where:

(1) Meetings are held exclusively between Federal officials and elected officers of State, local, and tribal government (or their designated employees with authority to act on their behalf) acting in their official capacities; and,

(2) Such meetings are solely for the purpose of exchanging views, information, or advice relating to the management or implementation of Federal programs established pursuant to public law that explicitly or inherently share intergovernmental responsibilities or administration.

4. SECRETARIES OF THE MILITARY DEPARTMENTS. The Secretaries of the Military Departments shall:

- a. Establish, resource, implement, and maintain effective DoD Component-level ESMPs that comply with the requirements in Enclosures 4 through 13 for all DoD activities that involve or have the potential to involve DoD military munitions.
- b. Implement procedures that allow for acceptance of ESM-associated risk at the appropriate leadership level when deviating from established ESMP standards.
- c. Assign a qualified officer -- experienced in DoD military munitions management, explosive ordnance disposal, or other agreed-upon functional area -- holding the grade of O-6 or higher, or equivalent level member of the civil service to the DDESB staff as the Service's military representative (MILREP) on a full-time basis.
- d. Ensure the DDESB has necessary access to installations and facilities, requested programmatic information, and DoD military munitions mishap (incident) sites and data.
- e. Coordinate, when appropriate, ESMP-related decisions and policies with other affected DoD Components.
- f. Maintain awareness of and, where appropriate, take action to eliminate or mitigate deviations from ESMP standards.
- g. Notify, as appropriate, affected local U.S. and host nation government officials to ensure communication of the risk of DoD operations involving DoD military munitions. Communications with host nation government officials shall be made in coordination with the U.S. Embassy.

5. DIRECTORS OF THE DEFENSE AGENCIES AND DoD FIELD ACTIVITIES. The Directors of the Defense Agencies and DoD Field Activities whose operations entail the development, acquisition, use, storage, transport, and disposal of DoD military munitions shall:

- a. Establish, resource, implement, and maintain effective DoD Component-level ESMPs that comply with requirements in Enclosures 4 through 13 for all operations that involve or have the potential to involve military munitions.
- b. Implement procedures to accept ESM-associated risk at the appropriate level of leadership when deviating from established ESMP standards.

6. CHAIRMAN OF THE JOINT CHIEFS OF STAFF. The Chairman of the Joint Chiefs of Staff shall direct the integration of ESMP into operational and exercise planning and execution of operations.

7. **COMMANDERS OF COMBATANT COMMANDS.** The Commanders of Combatant Commands shall:

- a. By direction provided by the Chairman of the Joint Chiefs of Staff, integrate the ESMP into operational and exercise planning and execution of operations.
- b. Maintain awareness of deviations from DoD 6055.09-STD (Reference (f)) within their respective area of responsibility (AOR) and, where appropriate, take action to eliminate or mitigate such deviations.
- c. Coordinate ESMP decisions, as appropriate, with affected Commands, Military Services, and local U.S. and host nation government officials.
- d. Ensure the DDESB has access to installations and facilities, requested programmatic information, and DoD military munitions mishap (incident) sites and data.
- e. Coordinate and de-conflict DDESB visits and inspections with affected Military Services and DoD Components.

ENCLOSURE 3

DDESB ORGANIZATION, MANAGEMENT, AND FUNCTIONS

1. PURPOSE

- a. The Ammunition Storage Board was established by section 172 of title 10, U.S.C. (Reference (g)). Pursuant to Reference (a), its functions, authorities, and purposes are subsumed by the DDESB, the purpose of which is to protect the public, military personnel, and government and private property from unintentional consequences of an incident or accident (e.g., fire, explosion) involving DoD military munitions. Transformation has postured the DDESB to maintain its underlying purpose in a manner that optimally reduces or avoids costs and mission burdens. The DDESB recommends policy, develops and provides technical guidance, evaluates programs, and provides a forum for coordination among the DoD Components on all matters related to ESM.
- b. Any discussions, liaisons, negotiations, or other contacts with foreign governments or international organizations by the DDESB shall be accomplished in coordination with the USD(P) and in strict compliance with all requirements governing contacts and agreements with foreign states or international organizations.

2. DDESB COMPOSITION AND STRUCTURE. The DDESB consists of:

- a. DDESB Chair. The DDESB Chair is the principal OSD executive representative and advisor on explosives and chemical agent safety matters related to DoD military munitions.
- b. Voting Board Members. The Voting Board members consist of the DDESB Chair and the Military Service voting members appointed according to Reference (a).
- c. DDESB Staff. The DDESB staff is a full-time staff reporting to the DDESB Chair. The staff includes the MILREPs appointed according to Reference (a).
- d. Invited Members. Invited members are representatives from other DoD Components, the U.S. Coast Guard, or other Federal agencies whom the DDESB Chair formally or informally invites to participate in DDESB meetings when matters of common interest are under consideration. These members do not vote on Board matters.

3. DDESB MEETINGS. The DDESB formally meets a minimum of two times per year at the discretion of the DDESB Chair.

- a. Voting Board Meetings. These are formal meetings at which the Voting Board members review, deliberate, vote, and provide, in consideration of matters presented by the DoD Components and DDESB staff, a recommended DoD position on ESMP-related issues.

b. Business Meetings. These are meetings at which the Voting Board members gather to:

- (1) Discuss current ESMP issues.
- (2) Evaluate and recommend DoD ESMP objectives and priorities and DoD ESMP performance auditing, measurement, and reporting processes to DUSD(I&E).
- (3) Identify DoD ESMP technology requirements and programmatic and systemic DoD ESMP issues.
- (4) Identify and analyze research and engineering investment, special study, and testing proposals for consideration for programming.

c. Conduct of DDESB Meetings

- (1) The DDESB Chair presides over all Board meetings and provides the agenda.
- (2) DDESB meetings follow normal parliamentary procedures and procedures specified by the DDESB Chair.
- (3) Matters brought before the Voting Board members are normally resolved through consensus. For those matters that require a vote (generally limited to changes to Reference (f)), the DDESB Chair and the Voting Board member from each of the Services will each have one vote. Votes may occur during DDESB meetings or, when required, by correspondence, but not by proxy.
- (4) Voting Board members may request Board meetings.

4. FUNCTIONS OF THE DDESB CHAIR. The DDESB Chair:

- a. Oversees execution of the DoD ESMP delineated in Enclosures 4 through 13.
- b. Directs the DDESB staff.
- c. Presides over DDESB meetings.
- d. Presents, for Voting Board member consideration, recommended changes to Reference (f) or other ESMP-related issuances.
- e. Develops recommendations for and maintains ESMP-related issuances.

5. FUNCTIONS OF THE VOTING BOARD. The Voting Board:

- a. Provides to DUSD(I&E) recommended revisions for ESMP-related issuances.

- b. Advises DDESB on ESMP-related issues of concern to their respective Service.
- c. Presents, for Voting Board consideration, changes to References (a) and (f) or other ESMP-related issuances.
- d. Identifies to DUSD(I&E) the DoD ESMP technology requirements and programmatic and systemic DoD ESMP issues.
- e. Identifies and analyzes research and engineering investments, special studies, and testing proposals for consideration for programming.

6. FUNCTIONS OF THE DDESB STAFF. The DDESB staff:

- a. Supports the DDESB and the DDESB Chair.
- b. Supports the DDESB transformation and business operation's functions including, but not limited to:
 - (1) Developing and maintaining strategic and implementation plans for actions related to ESM.
 - (2) Developing resourcing strategies.
 - (3) Developing and executing a knowledge management strategy.
 - (4) Supporting the DDESB process re-engineering.
 - (5) Managing DDESB administrative functions.
 - (6) Organizing the biennial DoD Explosives Safety Symposium.
- c. Performs DDESB program evaluation functions including, but not limited to:
 - (1) Providing DoD Component ESM support.
 - (2) Reviewing and recommending disposition of DDESB-required explosives safety submissions (RESSs).
 - (3) Tracking DoD Component deviations from the criteria in Reference (f).
 - (4) Evaluating the DoD Components' ESMPs with respect to the requirements of Reference (f) and other ESMP-related issuances. Evaluation includes, but is not limited to, assessing the DoD military standpoint aspects of DoD military munitions and performance, site plan execution, real property disposal actions, and risk management.

(5) Coordinating all inspections and visits within Combatant Command AORs or theaters through the Combatant Command J4 (Munitions Office) for coordination and verification of locations and dates.

d. Supports DDESB policy development functions by:

(1) Developing recommendations for DoD ESMP-related issuances to protect people, the environment, and national strategic assets from the explosives and chemical agent safety hazards associated with DoD military munitions, and enhancing mission effectiveness by minimizing the explosives or chemical agent safety risk from DoD military and other munitions.

(2) Developing plans for a comprehensive and coordinated explosives safety research, development, testing, and evaluation (RDT&E) program to improve ESMP-related activities and address ESMP-related issuances.

(3) Maintaining and analyzing DoD military munitions mishap (incident) data and, when appropriate, civilian munitions (foreign or commercial) mishap (incident) data and recommending, when necessary, policy changes to ensure that ESMP-related issuances are adequate to prevent or mitigate the effects of future mishaps (incidents).

(4) Developing and recommending improvements to risk-based criteria, methodologies, and tools to identify, assess, and mitigate hazards from accidental explosions.

(5) Reviewing and providing recommendations on protective construction designs (Technical Manual 5-1300 (Reference (h)) for facilities located in explosives areas.

(6) Assessing and recommending ESM software for use in supporting recommendations and submissions to the DDESB.

(7) Developing, with the DoD Components, joint hazard classification procedures (Technical Bulletin 700-2 (Reference (i)) and recommending final DoD hazard classifications for DoD military munitions.

(8) Maintaining liaison and partnering with other DoD safety and acquisition organizations and State and other Federal agencies, foreign governments, academia, and industries on ESMP areas of mutual interest.

e. Performs such other duties as assigned by the DDESB Chair.

7. MILREPs TO THE DDESB. The MILREPs to the DDESB:

a. Coordinate with their Military Service, Joint Staff, Combatant Commands, and other DoD Components on the resolution of ESMP-related matters.

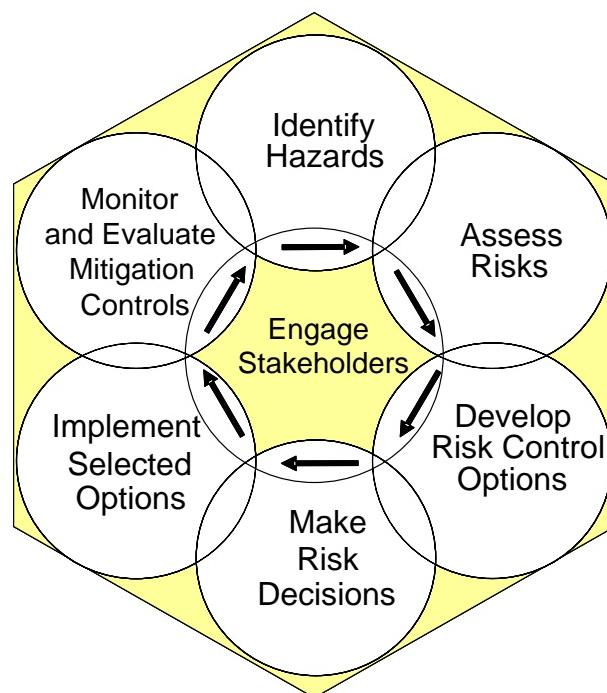
- b. Participate, as appropriate, in the Military Services' Explosives Safety Council and Senior Safety Advisory Council meetings, weapons systems approval boards, and ESMP training courses.
- c. Serve as liaison and represent their respective Military Service by assisting the DDESB staff understand their respective Military Service's mission, roles, doctrine, training, operations, and munitions management policies and ESMP.
- d. Participate in or review the results of any evaluations conducted of their respective Military Service.
- e. Advise, at least annually, their respective DDESB voting members and Safety Director of observations and recommendations for improving their Military Service's ESMP.
- f. Perform such other duties as assigned by the DDESB Chair.

ENCLOSURE 4

DoD MILITARY MUNITIONS EXPLOSIVES AND
CHEMICAL AGENT RISK STEWARDSHIP (MMRS)

1. DESCRIPTION. A process similar to the Explosives Safety Risk Management Model (see Figure) that ensures the responsible use of resources in identifying, evaluating, managing (i.e., preventing, controlling, mitigating) the potential explosives and chemical agent safety risks.
 - a. MMRS involves training personnel at all levels to identify, evaluate, and manage the potential explosives and chemical agent safety risks associated with their work.
 - b. MMRS employs the Explosives Safety Risk Management Model (see Figure) to:
 - (1) Identify the potential explosives and chemical agent hazards associated with DoD military munitions throughout their life cycle.
 - (2) Evaluate the risk from identified hazards.

Figure. Explosives Safety Risk Management Model



(3) Make informed risk decisions based on an evaluation of the explosives and chemical agent safety hazards and their associated risks. These decisions and their basis should be documented, when appropriate.

(4) Monitor, evaluate, and adjust management controls as necessary.

c. The goal of MMRS is to increase, from an explosives safety perspective, DoD knowledge of explosives and chemical agent safety risks to aid in the decision-making process.

d. MMRS is a cornerstone of ESM and provides a means to:

(1) Support the DoD Components in reducing costs and eliminating unnecessary expenditures.

(2) Provide tools to leaders and managers who are responsible for implementing an effective ESMP and making informed explosives safety risk management decisions.

2. REQUIREMENTS

a. DDESB Chair

(1) Develops and advocates MMRS policy and standards.

(2) Publishes DDESB-reviewed or developed ESM risk assessment methodology.

(3) Resources a database to support transparency of DoD Components' explosives safety deviations and related risk acceptance documentation.

b. Voting Board Members

(1) Advocate and support development of MMRS policy and standards within their Military Services.

(2) Monitor their Military Services' ESMP deviations and risk acceptance decisions and periodically brief status to the Board.

(3) Provide Military Services' ESMP deviations to MILREPs for incorporation into the DDESB's annual report to the Secretary of Defense (see Enclosure 7).

c. DDESB Staff

(1) Evaluates DoD Components' explosive and chemical agent safety risk management programs for compliance with ESMP-related issuances. The evaluation will include review of the DoD Components':

- (a) ESMP and any implementing guidance for the identification and mitigation of explosives and chemical agent safety risks associated with DoD military munitions.
 - (b) Processes for quantitatively and qualitatively identifying, characterizing, and documenting any explosives and chemical agent safety risks associated with DoD military and other munitions.
 - (c) Processes for managing, documenting, tracking, and mitigating explosives and chemical agent safety hazards and risk.
- (2) Tracks and analyzes the results of evaluations for trends and:
- (a) Recommends, when appropriate, changes to ESMP-related issuances or the DDESB's RDT&E or study programs to address recurring ESMP deviations or adverse trends.
 - (b) Uses the resulting information to increase DoD explosives and chemical agent safety risk intelligence.
- (3) Maintains a repository for reportable deviations from Reference (f) and associated documentation for analysis and to increase DoD explosives safety risk intelligence.
- (4) Investigates, develops, and recommends methodology, technology, and best practices applicable to MMRS and recommends changes to ESMP-related issuances.
- (5) Assists DoD Components, when requested, in managing risk by evaluating information provided or visiting identified locations and participating in risk assessments.
- (6) Investigates, recommends and, when appropriate, develops DoD military munitions safety risk assessment methodology for issuance by the DDESB.

d. DoD Components

- (1) Develop, publish, and implement DoD Component ESMP policy and guidance for risk management that is:
- (a) Based on assigned responsibilities and authorities.
 - (b) Consistent with both DoD policy for risk management and the DoD Components' overall risk management program.
- (2) Resource and provide MMRS in training programs.
- (3) Issue policy and procedures for explosives safety risk acceptance.

- (4) Provide the DDESB Chair, through the MILREPs, copies of deviations from Reference (f) and summaries of all DoD military munitions deviations for operations or locations exceeding 1 year in duration.

ENCLOSURE 5

ESMP ISSUANCES, PUBLICATIONS, AND DOCUMENTS

1. **DESCRIPTION**. ESMP issuances consist of, but may not be limited to, DoD Directives, Instructions, Manuals, and publications that may be augmented by joint publications, technical papers (TPs), and other publications. The DDESB staff maintains a Web site to provide access to the most current ESMP documentation.

2. **REQUIREMENTS**

a. **DDESB Chair**. As the principal DoD advisor on ESMP-related matters, and in collaboration with the voting members and DDESB staff, the DDESB Chair:

(1) Develops, recommends, and advises OSD leadership on the sufficiency of current or the need for additional ESMP-related issuances.

(2) Advocates for the publication of ESMP-related issuances, including, but not limited to, this Instruction and:

(a) References (a) and (f).

(b) DoD Instruction (DoDI) 4145.26 (Reference (j)).

(c) DoD 4145.26-M (Reference (k)).

(d) DoDI 4140.62 (Reference (l)).

(3) Directs the development of ESMP-related issuances and approves DDESB publications such as TPs (not DoD Directives, Instructions, and joint publications).

(4) Authorizes, as proponent and exception authority, revisions to References (h) and (i).

(5) Authorizes publication of the DoD Explosives Safety Seminar proceedings.

b. **Voting Board Members**

(1) Advise the DDESB on ESMP-related matters of concern to their respective Military Service.

(2) Recommend, for the DDESB's consideration, revisions to or development of ESMP-related issuances.

(3) Coordinate DoD policy with their respective Military Service.

(4) Provide, after coordination with their respective Military Service, the Service's position on proposed ESMP-related issuances, including changes to this Instruction and References (a) and (f).

c. DDESB Staff

(1) Supports the DDESB Chair in the development of new or revisions to existing ESMP-related issuances and other related documentation.

(2) Leads or participates in integrated project teams (IPTs), working groups (WGs), or other forums, including DDESB-chartered IPTs or WGs, that recommend or develop ESMP-related issuances.

(3) Maintains Web sites and other methods to provide access to and maximize the availability of current ESMP-related issuances and other related documentation.

(4) Develops proposals for revisions to Reference (f) and other ESMP-related issuances.

(5) Supports Board meetings by preparing agendas, distributing read-aheads, and providing briefings.

(6) Distributes, when a formal DDESB meeting is impractical or the issue to be considered is not substantive, proposals on changes to ESMP-related issuances for vote by the DDESB by correspondence. Because such votes preclude deliberation by the Voting Board members, votes by correspondence will be kept to a minimum.

d. DoD Components

(1) Issue, as required, DoD Components' ESMP-related policy and guidance that:

(a) Implement DoD requirements and provides DoD Component-specific requirements.

(b) Provide DoD Component-specific explosives and chemical agent safety requirements.

(2) Disseminate ESMP-related policy and guidance.

(3) Develop proposals and make recommendations for updating and maintaining ESMP issuances.

ENCLOSURE 6

DDESB RDT&E PROGRAM

1. **DESCRIPTION**. The DDESB RDT&E Program's objective is to maintain an effective ESMP and develop required and improve existing ESMP policy, standards, and processes. The scope of the program includes:

- a. Research and testing of explosion effects to quantify hazards during the DoD military munitions life cycle.
- b. The collection, aggregation, and analysis of data from selected reportable mishaps (incidents) and previous testing results to prevent occurrence, validate or improve ESMP-related standards, and ensure lessons learned are considered and mishap (incident) trends are identified.
- c. Development of techniques including risk-based methods and tools to identify, assess, rank, and mitigate hazards from a mishap (incident) involving DoD military munitions.
- d. Research and testing efforts used to develop hazard classification test procedures, personnel hazard and protection criteria, protective construction designs and criteria, ESM-related software and databases, facility siting criteria, and quantity-distance (QD) and risk-based standards and criteria.

2. **REQUIREMENTS**

a. **DDESB Chair**

- (1) Develops, with the advice of Voting Board members, priorities for the DDESB RDT&E program.
- (2) Resources and directs the DDESB RDT&E program.
- (3) Establishes, with the advice of Voting Board members, IPTs and WGs to support the development and execution of the DDESB's RDT&E program.
- (4) Reports the status of the DDESB RDT&E program in the DDESB's annual report to the Secretary of Defense.

b. **Voting Board Members**

- (1) As required, advocate for the establishment and maintenance of an ESMP-related testing and studies program relevant to their Military Services' needs.
- (2) Provide subject matter experts, as required, to serve on:

(a) The DoD Explosives Safety Testing Steering Group (DDESTSG) to coordinate the DDESB's RDT&E and ESMP-related testing and studies programs.

(b) The DDESB Science Panel, as required.

(c) DDESB IPTs and WGs for ESMP-related studies.

c. DDESB Staff

(1) Executes and maintains the DDESB RDT&E program.

(2) Identifies, with the DoD Components' safety communities, studies and tests required to maintain or improve the DoD ESMP.

(3) Recommends specific project statements of work and resource requirements, integrates the projects into a comprehensive program, and justifies and validates resources for executing the program.

(4) Liaises, partners, and coordinates, as appropriate, ESMP-related testing and studies with other DoD Components, Federal agencies, and State agencies and confers (but does not seek consensus) with foreign government organizations, national and international professional organizations, academia, and industries using procedures developed under section 3 of Enclosure 2.

(5) Participates, as directed, on the DDESTSG.

(6) Conducts DDESB RDT&E project reviews.

(7) Collaborates with the DoD Components to ensure that the DDESB's and DoD Components' RDT&E Programs are coordinated to avoid duplication.

(8) Provides subject matter experts when requested to serve on steering or oversight groups for DoD Component or joint Service ESMP-related studies or tests.

(9) Reviews DDESB Science Panel studies, progress, and results.

(10) Recommends changes to ESMP based on scientific and engineering advances.

d. DoD Components

(1) Develop, resource, and maintain a DoD Component ESMP RDT&E and studies program based on DoD Components' needs.

(2) Provide subject matter experts when requested to serve on the DDESTSG.

- (3) Provide subject matter experts to serve on the DDESB Science Panel, as required.
- (4) Coordinate with the DDESB staff to ensure that the DDESB's and DoD Components' RDT&E Programs are coordinated to avoid a duplication of effort and economy of scale.

ENCLOSURE 7

STRATEGIC COMMUNICATION

1. DESCRIPTION

a. The DDESB strategically communicates with numerous communities to enhance its ESMP and operationalize and integrate ESMP and MMRS tenets and requirements into operational planning and execution. It does this to enhance DoD mission performance and the effectiveness of its operational forces, and provide regular updates on the state of DoD ESMP. The DDESB's communities of interest include, but may not be limited to, the DoD Components, the Joint Staff, other Federal and State agencies, foreign governments, academia, industry, and professional and industrial organizations.

b. Effective strategic communication results in a broader understanding, both internally and externally, of DoD's ESMP and MMRS tenets and requirements. Such communication helps ensure communities of interest understand current ESMP policy, guidance, and standards and the importance of considering ESMP and MMRS tenets and requirements in the planning and execution processes. To accomplish this objective, the DDESB must:

- (1) Develop, maintain, and communicate the DDESB's Strategic Plan.
- (2) Publish an annual report on the state of the DoD ESMP.
- (3) Confer (but not seek consensus) with its communities of interest on matters of mutual interest or concern, joint protective construction design criteria, and joint DoD military munitions hazard classification procedures and other protocols and criteria.

2. REQUIREMENTS

a. DDESB Chair

(1) Champions the DDESB's mission and the value that implementation of an effective ESMP and MMRS adds to the missions of the operational forces, particularly the warfighters and the DoD Components.

(2) Conveys the philosophy of MMRS and the tools available for use to the DoD Components to enhance their ESMP and mission performance.

(3) Engages appropriate communities to ensure consideration and incorporation of ESMP and MMRS tenets and requirements.

(4) With the advice of the Voting Board members, develops, maintains, and publishes the DDESB Strategic Plan to comply with:

(a) The National Defense Strategy of The United States (Reference (m)) and its supporting plans.

(b) The Government Performance and Results Act of 1993 (Reference (n)) requirements for strategic planning.

(5) Publishes the DDESB annual report to the Secretary of Defense. This report, at a minimum, will consist of the following:

(a) DDESB Chair's assessment of the DoD ESMP.

(b) A summary of evaluations conducted for the previous year, any trends indicated, and key observations about evaluated ESMP.

(c) Metrics on mishaps (incidents) involving DoD military munitions for the previous year and any trends and observations.

(d) Metrics on DoD Components' ESMP deviations.

(e) Metrics on DDESB-RESSs processed for the previous year, and trends and observations (e.g., processing time -- in terms of maximum, minimum, and mean -- by Service).

(f) Metrics on hazard classification and alternate test plans for the previous year, as well as trends and observations.

(g) RDT&E update, including initiatives and accomplishments for the previous year.

(h) Transformation or process improvement updates, including initiatives and accomplishments for the previous year.

(i) Any other initiatives, accomplishments, or other areas of interest for the previous year that do not fall into previous categories.

b. Voting Board Members

(1) Provide information required to support the DDESB annual report to the Secretary of Defense.

(2) Participate in the development and implementation of the DDESB Strategic Plan.

(3) Liaise, partner, and participate in appropriate forums on behalf of the DDESB, when requested by the DDESB Chair.

(4) Promote Service participation in the DoD Biennial Explosives Safety Seminar.

(5) Determine specific Service needs, facilitate delivery needs, and consider organizing and leveraging Service-specific concurrent events for education and communication regarding the Service and DoD ESMPs.

c. DDESB Staff

(1) Annually provide the DDESB Chair:

- (a) Actions taken to implement the DDESB Strategic Plan.
- (b) Input required to develop the DDESB annual report to the Secretary of Defense.

(2) As directed by the DDESB Chair on ESMP-related matters of mutual interest or concern:

(a) Liaise and partner with DoD safety and acquisition organizations and personnel and Federal and State agencies.

(b) Confer (but not seek consensus) with national and international professional organizations, academia, and industries.

(3) When directed by the DDESB Chair, participate in ESMP-related:

(a) WGs and conferences.

(b) Data Exchange Agreements, Memorandums of Agreement, Memorandums of Understanding, Information Exchange Agreements, and other similarly aimed arrangements to be accomplished in coordination with the USD(P) and in strict compliance with all requirements governing agreements with foreign states.

(c) Acts related to North Atlantic Treaty Organization (NATO) AC/326 (Ammunition Safety Group) and other similar entities to develop, agree to, maintain, and proliferate internationally harmonized ESMP and hazard classification policy, guidance, standards, and criteria to be accomplished in coordination with the USD(P) and in strict compliance with all requirements governing agreements with foreign states. This includes supporting U.S. Key Delegate to the AC/326 Main Group, Sub-Group (SG) 5 (Logistic Storage and Disposal), and SG 6 (Operational Ammunition Safety), and participating as a member of the U.S. delegation.

(d) Conduct of a Department of Transportation (DOT) delegation to the United Nations “Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labeling of Chemicals” on matters related to DoD military munitions.

(4) Conduct a biennial DoD Explosives Safety Seminar.

d. DoD Components

- (1) By January 31 of each year, provide information including a summary of assessment for the DDESB's Annual Report to the Secretary of Defense. The summary includes information required for the report in paragraph 2.a.(5) of this enclosure and a summary of the assessment of the DoD Components' ESMP.
- (2) Provide subject matter experts, as available, to support the DDESB liaison and partnering initiatives.
- (3) Designate members, as appropriate, to DoD-supported NATO Conference of National Armaments Directors' WGs and subgroups, and ensure and resource active participation by designated members.

ENCLOSURE 8

DDESB EXPLOSIVES SAFETY MANAGEMENT EVALUATION PROGRAM

1. **DESCRIPTION**. The ESMP must continually evolve to meet ever-changing mission requirements. Central to the DoD-required management systems model is continual improvement. In executing oversight responsibility, the DDESB Chair measures, monitors, and evaluates performance to ensure continuous improvement, completing a continuous feedback loop that starts with the development of policy, moves to planning activities and policy implementation, addresses checking and corrective actions, progresses to management review, and finally feeds information back into policy development. The DDESB evaluation function:
 - a. Objectively evaluates the effectiveness of the DoD Components' ESMP.
 - b. Analyzes root causes of noncompliance with ESMP-related issuances.
 - c. Assesses compliance.
 - d. Identifies areas requiring corrective action.
 - e. Provides information to allow improved performance and increased efficiency.

2. **REQUIREMENTS**

- a. **DDESB Chair**
 - (1) Resources the DDESB staff to conduct evaluations of DoD Component ESMP activities and systemic evaluations of ESMP-related issues.
 - (2) Evaluates DoD Component ESMP to determine compliance with DoD ESMP-related issues.
 - (3) Publishes a coordinated ESMP evaluation schedule by June 30 of each year for the upcoming fiscal year.
 - (4) Assigns team leads and DDESB staff to evaluation teams for each evaluation.
 - (5) Reviews ESMP evaluation for trends, observations, and recommendations for:
 - (a) Inclusion in the DDESB Annual Report to the Secretary of Defense.
 - (b) Consideration in developing proposed revisions to ESMP-related issuances.

(6) When funds are available and funding is requested, funds the participation of Voting Board members in DDESB evaluations.

(7) Implements procedures to provide preliminary evaluation (survey) results to the evaluated activity during an out brief conducted by the DDESB staff.

(8) Provides final evaluation reports within 30 days for evaluations of DoD Component activities, and 60 days for evaluations of the DoD Component ESMP.

b. Voting Board Members

(1) Assist the DDESB Chair with coordinating evaluation schedules.

(2) To the extent practicable, participate in the evaluation process when beneficial to the Military Service or when requested.

c. DDESB Staff

(1) Provides the lead for evaluation teams. The evaluation team leader is responsible for:

(a) Coordinating the evaluation with the DoD Component.

(b) Assembling the team's findings and observations and, prior to departure and when circumstances allow, providing potential findings and observations to the Commander or representatives of the evaluated activities.

(c) Providing preliminary evaluation (survey) results to the evaluated activity during an out brief conducted by the DDESB staff.

(d) Preparing the evaluation report. In most cases, the evaluation team leader will provide a final report to the DDESB Chair within 25 working days of evaluation.

(2) Coordinates the ESMP evaluation schedule with the DoD Components' points of contact in support of paragraph 2.a.(3) of this enclosure.

(3) Evaluates the DoD Components' activities to determine compliance with DoD ESMP-related issuances.

(4) Evaluates the DoD Components' explosives and chemical agent safety risk management programs for compliance with DoD risk management principles, policy, and guidance.

(5) Develops and maintains an automated evaluation system to track compliance with DoD ESMP-related issuances.

(6) Analyzes evaluations for trends.

- (7) Provides input based on trends, observations, recommendations, and aggregated findings from evaluations to the DDESB Chair for the DDESB annual report.
- (8) Develops and maintains an automated evaluation system to track compliance with DoD ESMP-related issuances.
- (9) Disseminates lessons learned from evaluations.
- (10) Tracks ESMP-related findings and all required post-evaluation actions for compliance with Reference (a).

d. DoD Components

- (1) Provide, when operationally feasible and with prior coordination, the DDESB staff with access to installations or activities and Explosives Safety Centers to conduct evaluations.
- (2) Coordinate response to programmatic findings, normally through Explosive Safety Centers, with the DDESB Chair.
- (3) Respond to the DDESB evaluation team's findings identified in the DDESB evaluation report within 60 days of receipt for activities located in the continental United States and Hawaii and Alaska, and 90 days for activities outside the continental United States.
- (4) Provide DDESB process improvement feedback during an evaluation's outbrief.
- (5) Provide summaries of internal ESMP evaluations with DoD Components' annual reports (Enclosure 7).

ENCLOSURE 9

DOD EXPLOSIVES HAZARD CLASSIFICATION SYSTEM

1. **DESCRIPTION**. All DoD military munitions must be hazard classified prior to transportation or storage. References (f) and (i) provide joint hazard classification standards and procedures applicable to the transportation and storage of all DoD military munitions.

2. **REQUIREMENTS**

a. **DDESB Chair**

(1) Under subpart 173.56 of title 49, Code of Federal Regulations (Reference (o)), serves as the DoD military munitions hazard classification authority.

(2) Maintains DoD guidance on hazard classification in Reference (f) and other documents.

(3) Appoints a member of the DDESB staff to serve as the DDESB staff lead and proponent for Reference (j).

b. **Voting Board Members**

(1) Support the DDESB and their Military Services' hazard classifiers in developing and maintaining Reference (f).

(2) Provide subject matter experts, when required, to serve on DDESB WGs that are addressing matters related to hazard classifications.

c. **DDESB Staff Lead**

(1) In collaboration with Military Services' hazard classification authorities, develop and maintain an effective joint DoD military munitions hazard classification process.

(2) Maintain proponency over joint DoD military munitions hazard classification procedures (Reference (i)) in collaboration with the Joint Hazard Classifiers.

(3) Develop and interpret hazard classification requirements and protocols.

(4) Facilitate, support, and participate in meetings of the Joint Hazard Classifiers, including preparing agendas, chairing meetings, and issuing minutes from these meetings.

(5) Adjudicate and recommend approval of hazard classification alternate test plans submitted by the Military Department Hazard Classifiers (Reference (i)).

(6) Adjudicate and recommend approval of the final hazard classification for DoD military munitions (Reference (i)).

(7) Forward DoD final hazard classification assignments through proper channels to become filed and acknowledged by DOT.

(8) Provide DOT, through the Military Surface Deployment and Distribution Command, with updated lists of DoD personnel with signature authorities for issuing interim hazard classifications for the DoD Components.

d. DoD Components. The office identified as the Service Hazard Classifier in Reference (i) will:

(1) Maintain an effective joint DoD military munitions hazard classification process.

(2) Improve and update the joint DoD military munitions hazard classification procedures (Reference (i)).

(3) Recommend for approval final hazard classifications and alternate test plans in compliance with Reference (i).

(4) Comply with the joint DoD military munitions hazard classification procedures (Reference (i)).

(5) Assign interim hazard classifications and delegate interim hazard classification authority in compliance with Reference (i).

ENCLOSURE 10

DDESB-RESS PLANNING PROCESS

1. DESCRIPTION. The Services formally review, evaluate, and approve measures to protect DoD employees and the public from the explosive hazards associated with operations that involve DoD military munitions, including munitions response actions. The DDESB, through the DDESB Chair, evaluates and approves or disapproves DDESB-RESSs.

a. The process consists of four integrated phases:

(1) Development and Evaluation Phase. A DoD Component or, when appropriate, another entity identifies and formally documents all potential explosives or chemical agent safety risks to facilities, operations, and people from operations involving DoD military munitions, munitions operating facilities, or a munitions response to munitions and explosives of concern (MEC). Reference (f) provides the guidance and standards for developing RESSs.

(2) Submission Phase. A DoD Component or, when appropriate, another entity submits a DDESB-RESS for review and approval through appropriate channels (e.g., command channels) to the Military Service-level explosives safety office (i.e., the U.S. Army Technical Center for Explosives Safety, the U.S. Naval Ordnance Safety and Security Activity, the U.S. Marine Corps Systems Command Program Manager for Ammunition, or the U.S. Air Force Safety Center) for DoD Component-level review and approval and forwarding to the DDESB Chair for final review and approval.

(3) DDESB Review Phase. The DDESB staff makes a technical review of a submission, works with the appropriate Military Service-level explosives safety office to attempt to resolve any concerns with the submission, and recommends approval or disapproval, as appropriate, by the DDESB Chair on behalf of the DDESB.

(4) Implementation Phase. A DoD Component or another entity executes required actions per the DDESB-approved submission.

b. There are five categories of DDESB-RESSs:

(1) QD Safety Submission. The QD safety submissions (i.e., Explosives Site Plan and Chemical Agent Site Plan) involve evaluating the spatial relationships between potential explosion sites (PESs) and exposed sites (ESs) based on the deterministic QD criteria of Reference (f) for exposure, placement, and construction of the PESs and ESs. Application of the QD criteria, which are based on tests, modeling, and criteria established for other risks (e.g., air travel), provide an acceptable level of risk that is equal to or less than the qualitative threshold established by the DDESB; however, it does not provide for risk-free protection. Reference (f) defines circumstances under which QD safety submissions must be submitted to the DDESB, as well as the required content of safety submissions.

(2) Munitions Response Chemical Safety Submission (MRCSS)

(a) An MRCSS (formerly a chemical safety submission, or CSS):

1. Addresses the potential effects of an inadvertent release of chemical agent from a chemical munition or from a configuration that is not a munition during munitions response activities (e.g., intrusive field work).

2. Involves either the intentional physical contact with MEC (i.e., chemical munitions) or chemical agents in other than munitions configurations, or the conduct of ground-disturbing or other intrusive activities in areas known or suspected to contain MEC or chemical agents in other than munitions configurations.

(b) When explosive hazards are known or suspected to exist along with chemical agent hazards within a response area (e.g., the munitions response area (MRA) or munitions response site), a submission that addresses both explosives and chemical agent safety is required.

(3) Munitions Response Explosives Safety Submission (MRESS). An MRESS (formerly explosives safety submission, or ESS) addresses explosives safety requirements for munitions responses (e.g., field activities) that involve the intentional physical contact with MEC or the conduct of ground-disturbing or other intrusive activities in areas known or suspected to contain MEC.

(4) Risk-Based Safety Submission. Risk-based safety submissions address ESs and PESs that cannot meet deterministic QD criteria, but meet the DDESB-approved, risk-based siting acceptance criteria in Reference (f). These safety submissions are evaluated using a quantitative risk assessment (QRA) tool such as Safety Assessment for Explosives Risk (commonly known as SAFER) or an equivalent DDESB-approved QRA tool.

(5) Hybrid Safety Submission (HSS). An HSS addresses facilities and operations that may not conform to deterministic QD criteria of Reference (f) or risk-based criteria. Once a DoD Component accepts the explosives or chemical agent safety risk for the nonconforming part of an HSS, the HSS is forwarded to the DDESB for approval of the conforming portion. The DDESB staff may review and comment on the characterization of the nonconforming portion, but will generally not take a position on the acceptability of the explosives or chemical agent safety risk or the approval of the deviation. HSS may also include a DoD Component's submission of a plan (e.g., for implosion of buildings) that may or may not meet established criteria or for which criteria may not exist, but for which the DoD Component wants a DDESB staff technical review for either approval or recommendations for mitigation of potential explosive or chemical agent hazards.

2. REQUIREMENTS

a. DDESB Chair

- (1) Approves, on behalf of the DDESB, DDESB-RESSs that meet the requirements of Reference (f), this Instruction, and other relevant DoD ESMP-related issuances.
- (2) Returns DDESB-RESSs that, after consultation with the submitting DoD Component, cannot be completed or corrected to the level necessary to support a technical review by the DDESB staff. The DDESB Chair will forward DDESB-RESSs that require revision to the Military Service-level explosives safety office for appropriate action. A copy of the letter returning the submission will be provided to the DDESB Voting Board member for information.

b. Voting Board Members

- (1) Maintain awareness of DDESB-RESSs submitted by Service activities to the DDESB for review and approval.
- (2) Work with their respective Military Service-level appropriate office and the DDESB Chair to resolve matters related to DDESB-RESSs.
- (3) Coordinate requests for expedited review of DDESB-RESSs with the DDESB Chair and the DDESB staff.
- (4) Raise DDESB-RESS-related matters, including requests for review of disapproved submissions, to the DDESB for deliberation.

c. DDESB Staff

- (1) Reviews DDESB-RESSs for compliance with Reference (f), works with the Military Service-level explosives safety office to attempt to resolve any concerns with a submission and, as appropriate, recommends approval or disapproval to the DDESB Chair.
- (2) Recommends mitigation measures for submissions that do not meet the criteria of Reference (f).
- (3) Returns submissions when a DoD Component is unable to provide information sufficient to allow for DDESB approval or upon request of a DoD Component.
- (4) Enters safety submissions' information and data, as appropriate, from DDESB-RESSs in the DDESB knowledge management portal.
- (5) Develops, with the Military Service-level explosives safety office, an electronic process for submissions of DDESB-RESSs.
- (6) Implements a quality assurance process for monitoring, evaluating, and improving the process for reviewing and approving DDESB-RESSs.

(7) Provides semiannual reports that synopsize the positive and negative aspects of DDESB-RESSs received for technical review to the DDESB Chair for distribution to the DoD Components. The goal of the reports is to attain continuous improvement of these submissions.

(8) Reports the status of open safety submissions to the Voting Board.

d. DoD Components

(1) Designate a point of contact within the Military Service-level explosives safety office for coordinating the processing of DDESB-RESSs.

(2) Prepare DDESB-RESSs. DoD Component activities will submit DDESB-RESSs per DoD Component requirements. Other entities may submit DDESB-RESSs to the DDESB Chair based on land transfer agreements. The Military Service-level explosives safety office will review and forward Military Service-approved submissions to the DDESB staff for technical review and submission to the DDESB Chair for approval or disapproval.

(3) Submit DDESB-RESSs that include new or modified protective construction designs to the DDESB as soon as the protective construction details and ESM control measures are known and included in the design drawings, typically at the 60-percent design phase.

(4) As required by Reference (f), submit to the DDESB any plans, changes, or corrections that result in modifications to explosives safety quantity-distances (ESQDs), increased ESM risk, or that require protective design construction features be incorporated into facilities.

(5) Provide, electronically when possible (preferably in portable document format):

(a) DDESB-RESSs and supporting documentation.

(b) DoD Component (Military Service) site approval or cancellation documents to approved DDESB-RESSs.

ENCLOSURE 11

PROTECTIVE CONSTRUCTION DESIGN

1. DESCRIPTION. Protective construction is a method of protecting people, assets, property, and the environment from the effects of a DoD military munitions mishap (incident). Protective construction can include the use of PESs, ESs, equipment, processes, or items designed to demonstrate equivalent protection at less than the minimum separation distances as prescribed in Reference (f) or to reduce the maximum credible event for DoD military munitions sitings. The DDESB has oversight and approval responsibility for protective construction designs used to support reduced ESM distances that are submitted to the DDESB in DDESB-RESSs.

2. REQUIREMENTS

a. DDESB Chair

(1) Approves, on behalf of the DDESB, protective construction designs used to support reduced safety distances.

(2) Resources the DDESB staff to develop, recommend and, once approved, maintain a program to evaluate and improve protective construction designs for DoD military munitions or related facilities (e.g., storage, manufacturing).

(3) Establishes DDESB IPTs and WGs, as required, to support the development and execution of the protective construction design program.

b. Voting Board Members

(1) Coordinate requests for subject matter experts to serve on protective construction design WGs.

(2) Collaborate and provide DDESB positions on issues related to protective construction design.

c. DDESB Staff

(1) Reviews for approval protective construction design applications, interpretations of ESM criteria, and assessment of the maximum credible event or consequences.

(2) Recommends DDESB approval of protective construction designs for DoD military munitions or related facilities (e.g., storage, manufacturing).

(3) Chairs and provides technical oversight for IPTs or WGs.

(4) Develop and maintain a database of protective construction designs approved by the DDESB Chair.

d. DoD Components

(1) Submit, as required, protective construction designs to the DDESB for review and approval.

(2) Submit, when new or modified protective construction designs or a modification of existing protective construction is required, those designs to the DDESB as soon as the protective construction details and ESM control measures are known and included in the design drawings, typically at the 60-percent design phase.

ENCLOSURE 12

ANALYSIS OF DoD MILITARY MUNITIONS MISHAP (INCIDENT) DATA

1. DESCRIPTION. Proper analysis of mishap (incident) data, where DoD military or other munitions were involved, is critical to reducing the impact of and preventing future mishaps (incidents) within the Department of Defense. Data analysis may take different forms. Some data lends itself to statistical analysis. Other data requires analysis based on experience and knowledge to identify developing trends. Nevertheless, careful analysis can identify risk mitigation actions. By requiring, maintaining, and analyzing reports of explosives or chemical agent mishaps (incidents) throughout the entire life cycle of DoD military munitions, the DDESB provides such analyses. DoDI 6055.07 (Reference (p)) requires that serious explosives and chemical agent mishaps (incidents) be reported to the DDESB.

2. REQUIREMENTS

a. DDESB Chair

(1) Serves as the DoD proponent for DoD military munitions mishap (incident) data management (Reference (p)).

(2) Summarizes DoD military munitions mishap (incident) data analysis in the annual report to the Secretary of Defense.

b. Voting Board Members

(1) Ensure all DoD Component military munitions mishaps (incidents) as defined in Reference (p) are reported to the DDESB staff.

(2) Pursues updates of Service-specific standards to reflect changes in reporting requirements as prescribed in Reference (p).

c. DDESB Staff

(1) Collects, aggregates, and analyzes reportable DoD military munitions mishap (incident) data to:

(a) Validate and improve ESMP-related policy and Reference (f).

(b) Determine trends and develop lessons learned for provision to the DoD Components.

(c) Identify and recommend actions to validate or improve ESMP-related policy and Reference (f).

(2) Develops and maintains a DDESB Explosives Safety Mishap Analysis Module as part of the DDESB knowledge management portal.

(3) Develops and maintains a database of lessons learned from the mishaps (incidents) that involved DoD military munitions and, when beneficial, mishaps (incidents) that involve other munitions.

(4) Develops and maintains a capability to support and provide advice to mishap (incident) investigation teams.

(5) Participates as subject matter experts for mishap (incident) investigations, as appropriate.

(6) Updates data requirements and proposes changes for References (f) and (p).

d. DoD Components

(1) Report and provide data on all reportable mishaps (incidents) that involved DoD military munitions per References (f) and (p).

(2) Support collection, aggregation, and analysis of reportable mishap (incident) data for use in validating and improving ESMP-related issuances.

(3) Ensure that lessons learned from mishaps (incidents) are being disseminated and, as appropriate, incorporated in training programs, operating procedures, and DoD Component-level policy.

(4) Review mishap (incident) trends to determine whether corrective action is required.

(5) Submit annual DoD Component mishap (incident) data summaries and lessons learned for submission to the DDESB Chair for inclusion in the DDESB's annual report to the Secretary of Defense.

(6) Based on Service explosives safety trends and analysis, recommend changes to Reference (p) that will enhance explosives safety awareness and practices.

ENCLOSURE 13

DEVIATIONS FROM STANDARDS

1. **DESCRIPTION.** The term “deviation” refers to the mechanism(s) by which a DoD Component can accept, assess, and document the risk for not complying with or “deviating” from the requirements of Reference (f). Specific deviation mechanisms include waivers, exemptions, and Secretarial exemptions and certifications. In certain situations, strict compliance with explosives safety standards (Reference (f)) could adversely affect the successful outcome of DoD operations. In such situations, any DoD military munitions safety risk must be weighed against strategic or compelling operational requirements. DoD Components will use the tenets of MMRS (Enclosure 4) to ensure:

- a. Informed risk decisions are made at the appropriate leadership level.
- b. Hazards or the risk associated with deviations from explosives safety standards are appropriately mitigated following DoD Component-specific requirements.

2. **DEVIATION MECHANISMS.** Waivers, exemptions, and Secretarial exemptions or certifications, defined in the glossary, are used to accept risk and document deviations from explosives safety standards (Reference (f)).

a. Waivers

(1) DoD Components will ensure a waiver is initiated at the appropriate level when a solution cannot be immediately implemented to bring explosives safety practices in compliance with explosives safety standards.

(2) Waivers will be reviewed for applicability and currency at intervals not to exceed 2 years and the risk assessment used as the basis for the waiver to confirm:

- (a) Conditions that required the waiver have not changed.
- (b) Risk has not increased.
- (c) Mitigating measures remain effective.

(3) There are two types of waivers used to address situations where strategic or compelling operational requirements require deviation from explosives safety requirements. These are:

(a) Event Waiver (Nonrecurring). An event waiver is initiated for deviations expected to last less than 1 year and are not expected to reoccur. Normally, event waivers are

not reported to the DDESB; however, the DDESB may review event waivers, including risk acceptance documents, during program evaluations.

(b) Recurring Waivers. A recurring waiver is used for deviations expected to last more than 1 year at the same location or expected to reoccur at the same location after a year. Recurring waivers and supporting documentation, including risk acceptance documents, are reported to the DDESB.

b. Exemptions

(1) Exemptions are written authorities that permit long-term noncompliance with the explosives safety standards and are reviewed for applicability, currently at intervals not to exceed 5 years. In certain situations (e.g., where authorization to purchase real estate for sufficient ESQD clearance has not been granted, where a significant impairment of the U.S. defense posture would result), an exemption may be granted for a longer period of time or indefinitely.

(2) The risk assessment used as the basis for an exemption is reviewed concurrently when the exemption is reviewed (exemptions or certifications shall be reviewed at intervals not to exceed 5 years) to confirm:

(a) Conditions that required the exemption have not changed.

(b) Risk has not increased.

(c) Mitigating measures remain effective.

(3) Exemptions and supporting documentation, including risk acceptance documents, are reported to the DDESB.

c. Secretarial Exemption or Certification

(1) A Secretary of a Military Department may issue an exemption (a Secretarial exemption) or a certification (a Secretarial certification) when there is a valid requirement for the DoD Component to deviate from explosives safety standards (Reference (f)) to:

(a) Allow for the construction of new PESs or ESs or major modifications to PESs or ESs in violation of the standards; or

(b) Maintain an operational capability for strategic or compelling requirements.

(2) DoD Components will review Secretarial exemptions and certifications at intervals not to exceed 5 years.

(3) The Secretary of the Military Department will approve continuation of the exemption or certification and any changes to be made to mitigating measures.

- (4) Secretarial exemptions and certifications (and supporting documentation, including risk acceptance documents), as well as approvals of continuation, are reported to the DDESB.

3. REQUIREMENTS

a. DDESB Chair

(1) Recommends policy in Reference (f) that addresses deviations (e.g., need to limit, mitigate, assess, and document risk).

(2) Resources a database to maintain visibility of DoD Components' deviations and supporting documentation from Reference (f).

b. DDESB Staff. Maintains a repository of deviations from Reference (f) and supporting documentation to increase DoD visibility of such deviations.

c. DoD Components

(1) Publish policy for the acceptance of explosives and chemical agent safety risk at the appropriate level of command based upon command responsibility, authority to mitigate hazards and control risks, and operational necessity.

(2) Implement processes to apply the tenets of the MMRS (Enclosure 4) for deviations from explosives safety standards.

(3) Implement processes to document:

(a) Risk assessments.

(b) The level of risk associated with DoD military munitions and munitions-related operations.

(c) The acceptance of any explosive or chemical agent safety risk associated with military munitions-related operations and operations that involve military munitions.

(d) The leadership acknowledgment of risk acceptance and the mitigation measures taken to reduce any explosives or chemical agent safety risk.

(4) Submit copies of deviations from Reference (f) as outlined in paragraph 2 of this enclosure.

GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

AOR	area of responsibility
DDESB	Department of Defense Explosives Safety Board
DDESTSG	Department of Defense Explosives Safety Testing Steering Group
DoDD	Department of Defense Directive
DoDI	Department of Defense Instruction
DOT	Department of Transportation
DUSD(I&E)	Deputy Under Secretary of Defense for Installations and Environment
ES	exposed site
ESM	explosives safety management
ESMP	Explosives Safety Management Program
ESQD	explosives safety quantity-distance
HSS	hybrid safety submission
IPT	integrated project team
MEC	munitions and explosives of concern
MILREP	military representative
MMRS	military munitions risk stewardship
MRA	munitions response area
MRCSS	munitions response chemical safety submission
MRESS	munitions response explosives safety submission
NATO	North Atlantic Treaty Organization
OSD	Office of the Secretary of Defense
PES	potential explosion site
QD	quantity-distance
QRA	quantitative risk assessment
RDT&E	research, development, testing, and evaluation
RESS	required explosives safety submission
SG	sub-group
TP	technical paper
U.S.C.	United States Code

USD(AT&L) Under Secretary of Defense for Acquisition, Technology, and Logistics
USD(P) Under Secretary of Defense for Policy

WG working group

PART II. DEFINITIONS

Unless otherwise noted, the following terms and their definitions are for the purpose of this Instruction only.

acceptable risk. A level of risk associated with a hazard that DoD Components determine is allowable, and can remain from the standpoint of balancing benefit to the mission against the potential for accidental losses or harm to personnel, equipment, and mission.

deviation. Includes waivers (nonrecurring and recurring), exemptions, and Secretarial exemptions.

DoD military munitions risk assessment. A detailed, systematic examination including hazard analysis, hazard evaluation, and risk determination, and provision of prioritized risk mitigation alternatives for risk decisions.

ESMP. A systematic method by which the Department of Defense integrates explosives and chemical agent safety tenets and requirements into planning, decision making, and day-to-day operations involving DoD military munitions. An effective ESMP includes, but is not limited to, policies, procedures, standards, engineering methods, risk management processes, and the responsible use of resources.

ESMP-related issuances. Includes, but is not limited to, ESMP-related DoD issuances, Directives, Instructions, Manuals, and publications; ESMP-related joint publications; and DDESB issuances such as TPs, criteria, guidance, tools, and processes.

exemption. A deviation from mandatory explosives or chemical agent safety requirements applicable to DoD military and other munitions that are approved for the purpose of long-term satisfaction of recurring readiness or operational requirements.

life cycle. The total phases through which an item passes from the time it is initially designed and developed until the time it is either consumed in use or disposed of as being excess to all known materiel requirements (e.g., design, RDT&E, manufacturing, transport, storage, operational planning, use, demilitarization).

military munitions. See section 101(e)(4) of Reference (g).

MMRS. The responsible use of resources in identifying, evaluating, and managing (i.e., preventing, controlling, mitigating), from an explosives safety perspective, the potential explosives and chemical safety risks associated with DoD military munitions to sustain

readiness, protect people and assets, improve quality of life, strengthen civil relations, and preserve the environment.

MRA. Any area on a defense site that is known or suspected to contain unexploded ordnance, discarded military munitions, or munitions constituent. Examples include former ranges and munitions burial areas. A munitions response area is comprised of one or more munitions response sites.

munitions response site. A discrete location within an MRA that is known to require a munitions response.

risk. A measure of the expected loss associated with a given hazard or group of hazards that considers both the probability of occurrence and the consequence of a hazard. When expressed quantitatively, risk is the simple numerical product of severity of loss and the probability that loss will occur. When expressed qualitatively, risk is the expression of probability and consequence on an ordinal scale (e.g., Risk Assessment Codes 1-5).

risk decision. The result of a well-specified, logically defensible process to determine acceptable risk from the standpoint of balancing benefit to the mission against the potential for accidental losses or harm to personnel, equipment, and mission (e.g., severity, likelihood of occurrence). The process for making a risk decision is typically documented in Service risk management guidance.

risk diversity. An expression of difference in the impact and possibility of a mishap (incident) in terms of potential mishap (incident) severity and probability of occurrence, at various times and places. An example of low-risk diversity is when similar risks exist horizontally across the Department of Defense.

risk intelligence. The ability of an individual, team, or organization, through collective experience, to understand risk drivers and how to mitigate them.

Secretarial exemptions or certifications. A written authority granted by a Secretary of a Military Department or an authorized official to deviate from the requirements of explosives safety standards (Reference (f)) to allow the construction of new PESs or ESs.

waiver. A written authority that permits temporary deviation from standards for strategic or compelling operational requirements.